American Academy of Pediatrics
Testimony to the Center for Drug Evaluation and Research, FDA

My name is Dr Susan Panny and I represent the American Academy of Pediatrics. The AAP is an organization of over 54,000 Pediatricians committed to the attainment of optimal physical, mental, and social health and well-being for all infants, children, adolescents and young adults. Because of the potential for harm to the fetus, infant and child, the Academy is deeply concerned about the marketing of dietary supplements during pregnancy for structure/function claims under the Dietary Supplement Health and Education Act. I would like to comment specifically on the points for comment designated by the Center for Drug Evaluation and Research.

There are significant risks posed to both the pregnant woman and the fetus by use of dietary supplements that do not undergo prior FDA review. It should be recognized that the fetus and newborn represent a very special population with characteristics that differ from others. First, there are important developmental events occurring prenatally that are not mirrored postnatally. During the first 8 weeks after conception all the organs are forming. Drug or dietary exposures occurring during this time may therefore be responsible for birth defects. This developmental period is during a time when many women experience nausea, for which they might seek a dietary supplement for relief. Next, in the time period between 8 weeks and birth the fetus undergoes maturation of the body, including important aspects of brain growth and physical development. Exposures during this time period can produce permanent growth abnormalities or brain dysfunction. This would be a time period in which a pregnant woman might seek a

dietary supplement or other product to seek relief from nausea or leg edema, 2 conditions that the FDA has designated as being targeted for structure/function claims. In the absence of good human data to support the safety of these compounds, there exists the potential to place America's 4,000,000 children born annually at serious risk for birth defects, growth abnormalities, and developmental disabilities.

For most of the products that would be marketed under the DSHEA for structure/function claims, their safety is, at best unknown, and in some cases known to be harmful. For example, some of these supplements contain ephedrine or ephedrine-like compounds, which present a known risk to the fetus. For other products such as veratrum californicum, which has been advocated during pregnancy, animal studies have shown serious birth defects in exposed offspring. For this substance and for many others, there is virtually nothing known about its effects on humans during pregnancy. Even if a supplement has been found to be safe in non-pregnant adults, this does not necessarily imply safety during pregnancy, especially for the fetus. The way that substances are metabolized in the fetus and newborn is different in most circumstances. There may be variability in how a substance is handled by the placenta, including the possibility that the substance will be concentrated above the levels seen in the pregnant woman. Therefore, a claim or finding of safety in other populations is insufficient to ensure safety or efficacy in this vulnerable population

It is understandable that the FDA has chosen to distinguish structure/function claims from claims made in regard to treatment of disease states. The problem with this distinction in

the pregnant woman is that the difference between a normal physiological variant such as leg edema or nausea and vomiting and a disease state for which leg edema or nausea and vomiting is one symptom cannot be made reliably by consumers without appropriate monitoring. There will undoubtedly be those who will treat a serious disease such as toxemia of pregnancy with one of these supplements, leading to potentially disastrous consequences for the pregnant woman, fetus and newborn.

The AAP has a general concern about use of dietary supplements throughout pregnancy and believes that structure/function claims should not be permitted in any circumstances without prior FDA review. We recommend that all supplements that are marketed for structure/function claims in the pregnant woman undergo procedures similar to drugs that are marketed to treat disease states. This would mean, in most cases, animal testing, the design of human trials and the collection and monitoring of adverse effects. At the very least, supplements marketed for use during pregnancy should bear specific warnings about their use during pregnancy. They should state that they have not been tested in humans, that there is potential to cause birth defects, growth abnormalities or developmental disabilities, and that they should only be used with the consultation of the woman's physician or healthcare provider. Furthermore, we believe that this type of warning should be required for all dietary supplements that have not undergone prior FDA review.

We certainly recognize that some of these products may have beneficial effects and that consumers should have ready access to those that are safe and efficacious. We also

recognize the great potential for harm in the use of these supplements in pregnant women unless there are good data to document that they are not causing harm. It has been suggested that this rule will provide consumers with better information to allow them to select appropriate products. On the contrary, it appears that this rule will allow products to be marketed without any demonstrated record of safety in the pregnant woman, fetus or newborn. It is difficult to see how this will provide better information to the consumer.

In closing, the American Academy of Pediatrics urges the FDA to seek and heed the advice of all organizations whose focus is on the health and welfare of America's children before making this rule effective. If dietary supplements are allowed to be marketed to pregnant women under these structure/function claims, the FDA needs to determine the necessary and appropriate safeguards to minimize the risks for future children.